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ABSTRACT

In October 1995, New York City Technical College undertook a review of the Liberal Arts program to determine the extent that established outcomes were achieved. Specifically, the review sought to determine students' success in completing the program, their mastery of the basic skills emphasized in the program, the effects of the program on students, transfer outcomes, and general program strengths and weaknesses. Data were gathered from a spring 1995 alumni survey, studies of the 1988 and 1990 student cohorts, a spring 1996 survey of Liberal Arts students, and an analysis of transfer outcomes. Major program strengths identified in the review included the existence of a well-educated faculty, a broad and diverse curriculum, a diverse student body, extracurricular opportunities for students, and the development and maintenance of academic standards. Weaknesses included the lack of an academic Liberal Arts department to assume ownership of and responsibility for the program, the need to revise admission policies to avoid admitting students into the program simply because they were not admitted into other programs or have not decided upon a major, the inadequacy of financial resources, and low program completion rates. Appendixes provide the college mission statement and organizational chart, lists of Assessment Committee members, a description of current and proposed Liberal Arts degree requirements, and data tables. (TGI)

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# NEW YORK CITY TECHNICAL COLLEGE

# FINAL REPORT

## LIBERAL ARTS PROGRAM REVIEW

**I. Introduction**

**II. Program Assessment**

**III. Strengths**

**IV. Areas for Improvement**

**APPENDICES AND TABLES**

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**LIBERAL ARTS PROGRAM REVIEW**

## I. INTRODUCTION

### A. Background for Review

The Liberal Arts Program is one of twenty-eight associate degree programs offered by New York City Technical College. The College also offers a growing number of baccalaureate degree programs. Though the Liberal Arts Program has never been separately accredited, it is reviewed as part of the institution's accreditation from the Commission on Higher Education of the Middles States Association of Colleges and Schools.

On June 28, 1993 the Board of Trustees of the City University of New York (CUNY) passed a resolution requiring that all academic programs be reviewed at least once every ten years. On February 3, 1994, CUNY issued University-Wide Guidelines for Formal, Periodic Academic Program Review. In response, New York City Technical College developed and submitted a schedule of program reviews. The Liberal Arts Program was scheduled for review in the 1995-96 Academic Year. This review has been prepared in response to this CUNY requirement.

### B. Review Development, Format and Methodology

The Liberal Arts Program Review consists of this report and self-studies from the seven academic departments that comprise the Liberal Arts Program. The Liberal Arts Assessment Committee, chaired by Prof. Frank Gelbwasser, includes a representative from each liberal arts academic department (see Appendix B for the Committee membership). This Committee began preparation for this review in the spring 1995 semester by reviewing recent literature on the topic of assessment, and by planning appropriate review methodology. The Committee formed three sub-committees to collect various forms of information and data about the Liberal Arts program: (1) Student Attitudes/Satisfaction; (2) Skills Assessment; and (3) Institutional Data. The data included in this report come primarily from the work of these three sub-committees.

In October, 1995, each liberal arts academic department was given a rather comprehensive format for preparation of its self-study. The department chairs assigned faculty to prepare the self-studies by April, 1996. Following this report and related appendices and tables are the self-study reports of the liberal arts departments: African-American Studies, Developmental Skills, English, Humanities, Mathematics, Physical and Biological Sciences, and Social Sciences. In addition, the Puerto Rican and Latin American Studies program has included a report.

To carry out a study of the program, the Liberal Arts Assessment Committee collected and analyzed four major sources of data. The first was an Alumni Survey conducted in late Spring, 1995, by the Office of Enrollment Management. Nearly five hundred (488) alumni from four targeted recent classes (1985, 1988, 1991, and 1994) responded. Unfortunately only eighteen respondents reported they were liberal arts graduates. A second important source of data was the 1988 and 1990 cohort study done by Dr. Eva Chan, Enrollment Analyst. This study followed students entering in those two years up until 1996. The College Outcomes Survey administered by the Student Attitudes/ Satisfaction Sub-Committee was the third source of data. The College Outcomes Survey was administered to class sections of liberal arts students at New York City Technical College in the Spring, 1996 semester. One hundred and twenty-one surveys were completed and analyzed, representing approximately ten percent of the liberal arts enrollment. The questionnaire has a 95% confidence level with a +/- .01 error range based upon a 10% random sample. The data were compiled by the Association for College Testing (ACT). The survey focused on five areas: student social origins; measures of college performance; student attitudes towards City Tech; current and future educational plans; and personal growth. The final source of data was an analysis by the Institutional Data Sub-Committee of liberal arts students who transferred internally and to other CUNY colleges.

C. The College

New York City Technical College, founded in 1946, is currently the designated technical college of the City University of New York. The College began as a Technical Institute of the State of New York and continued as New York City Community College for two decades before becoming New York City Technical College in 1980. Only since 1980 has the College been able to grant baccalaureate degrees. The College is now in transition from being an associate degree institution to becoming a four-year technical college. The recently revised College Mission Statement is included in Appendix A.

New York City Technical College, located in downtown Brooklyn, primarily serves students from the five boroughs of New York City. The College is accessible via most subway lines. The physical plant, centered at Jay and Tillary Streets between the Brooklyn and Manhattan bridges, consists of six major high-rise classroom and student activities buildings (six to eleven stories) and a low-rise auditorium-gymnasium complex.

Current enrollment is 10,880 students. Most students are of low or moderate income, are minority group members, and reside in Brooklyn. 86% of City Tech's students receive financial aid. The ethnic breakdown is: 49% African-American, 23% Latino, 13% Asian, 15% white. Nearly half the students were not born in the United States and one-fifth enroll in English as a Second Language classes. Table 5A: Background Information indicates the ethnic identity, level of parental education, and other characteristics from a February, 1996 survey of liberal arts students.

Despite meeting the high school graduation or GED requirements, students must take a battery of placement tests upon admission to the University. Between 75% and 80% of the students who enroll at New York City Technical College are placed in one or more developmental education or CESL courses as a result of the mathematics, reading, and writing placement tests. Approximately sixty percent of the students enroll in mathematics and writing developmental courses. The remedial courses do not qualify for credit. The placement test currently also serves as the exit criteria from remediation. Approximately 40% of the students in mathematics and writing achieve success in their first attempt (the pass rate in reading has ranged from 45% to nearly 80% due to changing tests and conditions for test administration). Most liberal arts courses have as a prerequisite achievement of a passing score on these tests. These data indicate the degree to which entering students are not prepared academically for college-level work.

D. The Program

The Liberal Arts Program consists of the Associate in Arts and the Associate in Science degrees. The graduation requirements of these two degrees differ significantly. The AS degree requires completion of two semesters of calculus and one full year each of two different laboratory sciences. The AA degree requires more humanities courses, a less advanced level of mathematics, only one field of science, but two semesters of history, and three semesters of a foreign language. Both degrees require English composition, philosophy, literature, two semesters of social science, and allow for a few electives.

In 1995, CUNY mandated a reduction of all associate degree programs to a maximum of sixty credits (and baccalaureate programs to 120 credits). As a result, New York City Technical College has revised all degree requirements. The revised liberal arts degree, starting next year, will eliminate health and physical education and add a new, capstone Science, Technology, and Society course. The specific current and revised (proposed, pending CUNY approval) course requirements for each degree are included in Appendix C.

The College consists of five academic divisions. The Division of Liberal Arts and General Education and the Division of Science and Mathematics are responsible for the Liberal Arts Program. Dr. David Entin, Dean of Arts and Sciences, heads these two academic divisions. Each department has an elected faculty member who serves as chair (See Appendix B for a list of current department chairs and program coordinators). A faculty member, Dr. Earl Hill, is the Coordinator of Liberal Arts and reports to Dean Entin. Dr. Hill receives partial release time to coordinate liberal arts advisement and assist with program administrative matters. (See Appendix D for the curriculum vitae of Drs. Entin and Hill.) The chairs as a group meet regularly with the Dean and Liberal Arts Coordinator to review and discuss matters concerning the program. Included in Appendix A is an Organizational Chart of the College.



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The liberal arts program is different from other academic programs at New York City Technical College in two ways: it is not technical and it does not prepare students for immediate employment in a particular career field. The liberal arts departments covered in this review also provide the arts and sciences of the Core Curriculum required of all technical and career programs at the College. Certain aspects of the technical focus of the college benefit liberal arts students:

1) in all courses, liberal arts students are exposed to and interact with students majoring in technical disciplines;

2) liberal arts students attain a greater awareness of the important role of technology in American society and the world economy;

3) liberal arts students may enroll in specialized liberal arts courses created primarily for technical and career programs;

4) liberal arts students have opportunities to enroll in technical courses as electives and to explore a wide range of technical occupations.

The technical and career programs at New York City Technical College also benefit from the presence of a large and active liberal arts program.

E. Program Goals

The program has three broad goals. The first is to prepare students to transfer into baccalaureate programs and perform well academically in upper division courses. This requires that students receive a solid grounding in a liberal arts education by taking English, humanities, science, mathematics, and social sciences courses.

The second broad goal of the liberal arts program is to help students master a range of important skills:

- how to communicate orally and in writing
- how to reason in scientific and social science contexts
- how to apply mathematical thinking and modeling to solve problems
- how to understand and apply the scientific method
- how to use computers and access information
- how to understand the workings of society and human interaction
- how to think critically
- how to learn -- a lifelong process
- how to solve problems
- how to work as a member of a team.

The third goal is an exposure to and appreciation of the aesthetic and ethical dimensions of life, of other cultures and ethnic groups, and of the rights and responsibilities of citizenship.

F. Review Questions

The Liberal Arts Assessment Committee began its work by trying to identify, firstly, the significant desired program outcomes and, secondly, the means to determine the extent to which these were achieved. The primary questions the Committee decided upon were:

1) How successful are students in completing the program?
A corollary of this question is: to what extent do students not share this goal of program completion, i.e., are enrolled in liberal arts at City Tech temporarily and without desiring to graduate with an AA or AS degree?

2) Do liberal arts students master the basic skills the program purports to teach, i.e., written and oral communication, problem-solving, critical thinking, quantitative and social science reasoning, understanding of the scientific method, etc.?

3) How are the lives and outlooks of liberal arts students changed and broadened, i.e., through enhanced civic, multi-cultural, ethical, and aesthetic understanding?

4) How well do liberal arts students do when they transfer to baccalaureate programs and after graduation?

5) What are the strengths and weaknesses of the program?

## II. PROGRAM ASSESSMENT: ANSWERS TO THE REVIEW QUESTIONS

**Question 1: How successful are students in completing the program?**

A. Enrollment

The Committee began by examining basic enrollment data. Though our College is a technical post-secondary institution, the largest single major has been and remains liberal arts. Approximately ten percent of the student body has enrolled in liberal arts for the past fifteen years. This is in keeping with the 10% annual cap on new admissions (not enrollment) for liberal arts established by the Legislature when New York City Community College was changed to New York City Technical College in 1980. Table 1: Trends in Enrollment and Graduation, 1986-1996 summarizes total college and liberal arts enrollment at City Tech by semester since 1986.

Enrollment has remained relatively stable throughout the past decade for both the College and liberal arts. One minor discernible trend is a slight increase in the number and therefore percentage of liberal arts students. The proportion of liberal arts students enrolled in the AS degree program compared to the AA is growing, as indicated by the following data:

| | F90 | F91 | F92 | F93 | F94 | F95 |
|---|---|---|---|---|---|---|
| Liberal Arts AA | 842 | 547 | 760 | 876 | 959 | 698 |
| Liberal Arts AS | 236 | 204 | 387 | 445 | 394 | 426 |
| % AS | 22% | 25% | 34% | 34% | 29% | 38% |

The College does not engage in any particular activities to attract liberal arts students, unlike the technical and career programs which often carry out targeted recruitment efforts. The 10% cap on initial admissions and the College's unique CUNY mission as a technical college are the two primary reasons for lack of special efforts to reach out to potential liberal arts enrollees.

B. Retention/Persistence

The Enrollment Analyst hired by the College in the Fall of 1994, Dr. Eva Chan, has done a cohort analysis of students who entered in 1988 and 1990 in order to study persistence and graduation patterns over time. These data are in Table 2: Retention and Graduation Rates, which shows that one-third of all students and approximately one-third of the liberal arts students leave during or at the end of their first year. Students who enroll continuously have much higher graduation rates than students who stop out, i.e., attend, drop out, re-enroll, etc. Persistence is rewarded. The data in Table 2 also reveal an amazingly high persistence effort. Approximately half of all the students who began enrollment at the College six or eight years ago are still enrolled. The percentage among liberal arts students is similar for the 1988 cohort, but lower for the more recent cohort. These persistence trends reflect two known characteristics of City Tech students: they are likely to enroll part-time over a long period of time probably because of the need to support themselves and their families; and they take a long time to complete their developmental education requirements.

C. Graduation

Unlike enrollment statistics, the graduation figures in Table 1 do not reflect any growth in liberal arts graduates during the past decade. In fact, this Table would clearly seem to indicate a lower rate of graduation for liberal arts majors than the college as a whole, i.e., substantially lower than the enrollment ratio. Table 2 includes a breakdown by AA and AS for liberal arts students. The graduation rate for the 1988 cohort as of January, 1996, was 22% for the College as a whole, and 14-15% for liberal arts students, a substantially lower rate. For the 1990 cohort, 14% of all students had graduated, but only 12% of liberal arts AA students and 9% of AS students. A comparison of these two years might seem to indicate an improving liberal arts ratio, but the total number of graduates as found in Table 1 does not seem to support such a hypothesis. The low graduation rate is a cause for concern, though early transfers and other reasons at least partially explain this phenomenon.

D. How Transfers Affect the Graduation Rate:

1. Internal Transfers

One reason hypothesized for the lower graduation rate of liberal arts students is that some students in this major are, in fact, seeking a different major. Students may enroll in liberal arts when they are not admitted into their first choice program, or they may enter liberal arts as an interim major while waiting to qualify for or transfer into another major. This is especially thought to be true of students desiring entrance into the College's most selective programs, i.e., nursing, radiologic technology, and dental hygiene. All liberal arts faculty advisors have come across students who, for example, start to take the requirements of the nursing curriculum rather than the liberal arts curriculum because that is their first choice of career.

There is also the reverse situation, i.e., students who enter another major but do not do well or cannot gain entrance into the clinical portion. These students are often counseled to change their major or decide on their own to enter liberal arts because they have no other definite career plans. Since these students are usually weaker academically, they are more likely to leave the college than graduate once entering liberal arts.

In order to gain greater understanding of the number and percentage of students for whom liberal arts is not the desired major, transfers into and out of the program were analyzed for the 1994-5 academic year. In the Fall 1994 semester, 94 students transferred out of liberal arts into other majors, while 55 students transferred into liberal arts from other programs. The Spring 1995 figures were 66 and 45 respectively. Most striking was that the transfers were very much across the board, not primarily from one or two selective health professions. In fact, the two most popular transfer majors for students leaving liberal arts were human services and legal assistant studies. The two programs losing the most students to liberal arts were chemical technology and telecommunications, and the individual program numbers here are quite small. The total number of transfers in either direction is roughly 10% per semester. The total number of internal transfers was 260 for last year, or 19% of the total liberal arts enrollment. This might be considered a relatively high rate of transfer. It is also noteworthy that considerably more students transfer out than transfer in. If a student transfers out of the program, he or she will obviously not become a liberal arts degree graduate.

2. Transfers to and from other Colleges

Our study also revealed a higher than expected number of transfer students from other colleges into the Liberal Arts program. In the Fall of 1995, 82 students or 7.3% of the total liberal arts enrollment had already earned college degrees. Fifty-



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seven had earned associate degrees in other majors at New York City Technical College. Most of these students wished to pursue a baccalaureate degree elsewhere and continued enrollment here in order to pick up additional credits needed to transfer for their more advanced degree. These students clearly do not have as their goal graduation with an associate degree in liberal arts. It is also interesting to note that a few of these students already have bachelor's degrees from their transfer institutions, including such schools as Cornell and the University of Wisconsin.

It is also believed that significant numbers of liberal arts students transfer to four-year schools, particularly within CUNY, after their first year at City Tech. Unfortunately the University is not able to provide data on this phenomenon. We do know that attrition after the first year of enrollment is often higher among students with a 3.0 or higher Grade Point Average (GPA), 24.4% in the 1990 cohort, than among students with a 2.0 to 2.9 GPA, 18.3%. It is likely that most of these more academically talented liberal arts students are not dropping out due to lack of success, but rather are probably transferring to baccalaureate programs elsewhere. Though not completing the degree, these students should be counted as program successes. The higher than expected number of internal and external transfer students goes far to explain the lower than desirable graduation rate.

There are two other indicators that the more academically talented students may leave City Tech before graduating to enter a baccalaureate program. Table 5A: Background Information shows that while 49% of the current students plan to re-enroll, 39% plan to attend another college, a percentage somewhat higher than those ready to graduate. In Table 5D: Student Satisfaction, 36% of the liberal arts students would not choose this college again, while only 32% would (the remaining 34% are neutral). At the same time, 57% of these same survey respondents would recommend this college to a friend, and only 21% would not recommend to a friend (23% neutral). Other data on this table indicate the students are satisfied with their education at City Tech. Therefore, some students may feel that entering a four-year liberal arts program would have been better for them. Here are, thus, two other indicators that seem to show that some students are leaving City Tech before graduation in order to transfer elsewhere. Overall, it can be concluded that the percentage of student program completion is low, but that there are several valid explanations for this lower rate of graduation.

**Question 2: Do liberal arts students master the basic college skills?**

A. the Rising Junior Exams to Be Given by CUNY

The Skills Assessment Sub-Committee wanted a means to measure the extent to which students graduating with the associate degree in liberal arts have achieved sufficient mastery of basic college-level skills. The University announced in September, 1995, that it was overhauling the current system of testing, placement,

and certification, and that it would be developing a series of tests for assessing the capacity of rising juniors to undertake advanced level college work. This spring the University is pilot-testing some instruments for this rising junior examination. When this testing system is completed some time next year, it will be implemented at all CUNY schools. This new CUNY testing system will provide the data on skills assessment for students about to graduate from the NYCTC liberal arts program. These rising junior tests will be required of all associate degree graduates transferring to a baccalaureate program.

B. Other Possibilities for Measuring Outcomes

The Skills Assessment Sub-Committee also explored the availability of nationally designed instruments. This sub-committee reviewed tests from both the Educational Testing Service and the American College Testing Program. These organizations do have tests for critical thinking, writing skills, science reasoning, etc. The advantage of such tests is that these agencies do the scoring and offer comparisons with national normative standards. One primary disadvantage for City Tech is the cost. Just two such tests would run around $13 each, or $1,300 for one hundred students. At a time of severe budgetary constraint this amount was considered more than the College could afford. A series of locally designed instruments would take more time to develop and would face problems of validity and reliability. The committee thinks that creation of a process for analysis of portfolios of student work over time would be another acceptable means for assessing skill development and achievement.

C. Alumni Survey Data

There are currently surrogate measures to indicate that liberal arts graduates do achieve the desired level of skill competence. Both the views of alumni and current students confirm their sense of achievement in these important areas. In addition, the departmental self-studies report on departmental efforts to assure satisfactory achievement of related course-embedded standards and skills.

A review of the results from the entire survey and of the eighteen reported liberal arts alumni reveals an overall positive response to the general education received at City Tech. It is realized that the small number of liberal arts respondents limits the value of the inferences and is not statistically valid.

In terms of preparation for using communication skills, one of the primary outcomes of the liberal arts program, the replies to the alumni survey among liberal arts graduates were very favorable:



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Preparation for Using Communication Skills

| | Excellent | Good | Adequate | Inadequate |
|---|---|---|---|---|
| Reading | 3 | 9 | 5 | - |
| Writing | 4 | 10 | - | - |
| Speaking | 3 | 9 | - | - |

In terms of the type of writing alumni reported doing "very often," eight specified letters and memoranda; six, reports and proposals; one, advertising; and one, articles and books. Regarding speaking experiences on the job "very often," eleven communicate with colleagues and customers, six give instructions to others, and four report formal presentations to groups. Not surprisingly, writing and speaking skills were considered very important by alumni, and seven found English to be the most helpful course, compared to four selecting mathematics and four, science. Twelve of eighteen respondents found the general education courses to be "important," while only four chose "marginally important," and two, "unimportant."

The results from the 488 alumni who did respond to the survey provide further indication of the value of the general education offered at City Tech. This large number of respondents makes this data valid and statistically reliable. Table 3: 1995 Alumni Survey shows that seventy to eighty percent of the graduates found their communications skills preparation to be excellent or good. Over half (56.9%) reported that their liberal arts courses were an important part of their education. Only 3.4% found their mathematics education inadequate, while over half rated mathematics preparation excellent or good. Nearly one-fifth did not consider mathematics applicable to or useful in their work. This alumni endorsement of the College's general education provides additional support for the overall quality and usefulness of liberal arts at New York City Technical College.

D. College Outcomes Survey

The survey of 121 liberal arts students administered in classes in February, 1996, indicates that the students themselves rate the skill mastery goals of the liberal arts program highly. More significant, an overwhelming majority feel that they have made progress at City Tech toward attainment of these outcomes. Table 5B: Outcomes Attainment found approximately two-thirds report progress "at this college" to be "much" or "very much" in speaking, writing, listening. Under 12% rate the college contribution as "little" or "none" in these skill areas. From 54% to 70% attribute substantial progress at the college in learning to think and reason, drawing conclusions after weighing evidence, developing problem-solving skills. The college influence is less in science, mathematics, technology, and the environment, but still very significant. The students themselves thus feel that they are mastering the basic college skills that are an important liberal arts program goal.

**Question 3: How are the lives and outlooks of liberal arts students changed and broadened?**

A. College Outcomes Survey

The Outcomes Survey of 121 liberal arts students strongly evidences the College's impact on students' lives and outlooks. Table 5C: Personal Growth shows the extent to which an overwhelming majority of the students report positively the college's contribution to their personal growth. This broad survey finds significant college impact in such areas as social skills, insight into human nature through literature and the arts, sensitivity to moral injustices, productive work relationships with both men and women, and self-understanding. The highest ratings were in interacting well with people from other cultures, tolerance, responsibility for own behavior, dealing fairly with a wide range of people, intellectual curiosity, and setting life goals. The weaker but still significant areas were in leadership and citizenship.

Table 5A: Background Information, Section G, Highest Degree Goal in Life demonstrates a dramatic rise in student educational aspirations from entrance into the College to the time of the survey. The percentage of students wishing to pursue post-baccalaureate education rose from 41% to 78%.

From all of these outcome indicators, it is clear that students rate City Tech highly, believe the desired program outcomes are very important, and feel they are achieving these goals as a result of their experience here. These data strongly support the conclusion that the liberal arts program is a major contributing factor in the lives, personal growth, and academic attainment of our students, as reported by current students.

**Question 4: How well do liberal arts students do when they transfer and after graduation?**

A. Transfer Elsewhere

The Institutional Data Sub-Committee worked assiduously to gather data on how well City Tech students, and particularly liberal arts majors, do when they transfer to other colleges. Because liberal arts is a transfer degree, a primary purpose is to prepare students to enter baccalaureate programs elsewhere. We know most students transfer to the upper division of CUNY colleges. Considerable effort was made, therefore, to approach our sister colleges within CUNY to acquire data on our students who transferred and to also approach the central institutional research unit within CUNY. However, the Sub-Committee was less successful than desired. Most colleges did not have the requested data readily available and the central unit did not provide particularly useful data despite our written request.

However, what data we were able to collect did provide a positive and encouraging picture to us. We did find out that in 1990, thirty-six liberal arts students from City Tech transferred to CUNY Colleges. Nearly half (16) went to Brooklyn College, followed by CCNY (6), Baruch (5), Hunter (4), and York (3). The CUNY Office of Computing also provided us with information on all City Tech transfers from the Fall, 1990 to the Spring, 1994 period. The largest number (33) transferred within the College, i.e., to City Tech baccalaureate programs, followed by transfers to Baruch (31), Brooklyn (20), Hunter (15), CCNY (11), and John Jay (11).

Two individual colleges did provide us with some relevant data. Baruch College reported the GPA of City Tech transfers from Fall 1986 and from Fall 1990 (See Table 4: Transfer Data). There are clearly improved persistence and graduation rates from the first cohort to the second, and an improved GPA. However, we do not know the number of students represented by these figures, nor which were liberal arts majors at City Tech. Brooklyn College data are somewhat more useful. Among the 1994 graduates were forty-five City Tech transfers, who had a higher GPA and graduation rate than transfers from other colleges and whose GPA and graduation rates were equivalent to Brooklyn College students. In fact, twenty of the City Tech students graduated with honors. From this limited data we can conclude that City Tech students do well upon transfer in terms of both grade point average and graduation rate.

B. Alumni Survey Data

Most of the survey results of the liberal arts graduates were encouraging, but there were a few weak areas. Fifteen of the eighteen went on to pursue a baccalaureate degree. Eleven of these stayed within CUNY. All respondents to the particular question reported full acceptance of transfer credits. In terms of preparation for continued education, one said excellent, ten reported good, and six chose adequate. The program's transfer results were thus quite positive.

Fifteen of the eighteen liberal arts graduates said they were employed while a City Tech student, and one-third are still with that same employer. Fifteen are now employed, a higher percentage than the alumni as a whole. They earn a median salary of $30,000, which is satisfactory for recent graduates. Nine felt that their current job was not directly related to their liberal arts major. All employed liberal arts respondents felt that their major at City Tech did not prepare them for their first job. Most received on-the-job training, but only saw a minimal connection between the skills and experiences learned in the liberal arts major and the requirements of this first job. Since liberal arts is a general transfer program and not a career or technical major, this is not a surprising finding. At the same time, one would hope that a liberal arts major would provide useful general skills and background for any career and that alumni would make these connections. Fifteen of seventeen liberal arts alumni responding to the question would recommend the program to a friend, a hearty endorsement of the City Tech liberal arts education.

Liberal arts students were not satisfied with their preparation for their first employment experience, and a few felt they could have been better prepared for upper-division work. One area in particular where students wanted more preparation was in the use of computers. These are areas to address in strengthening the liberal arts program. The students found the program very helpful in providing varied communication skills. Their general education courses were important to them; they would recommend the program to friends. The overall results from this survey are positive, but there are areas for improvement. The small number of liberal arts respondents means that these results may be limited and not valid. The Liberal Arts Assessment Committee hopes to survey liberal arts alumni exclusively in the future.

**Question 5: What are the strengths and weaknesses of the program?**

III. PROGRAM STRENGTHS

After reviewing the attached departmental self-studies and the program assessment data, it is possible to discuss major program strengths and areas for improvement. There are at least five substantial program strengths: faculty, curriculum, student body, standards, and extra-curricular activities.

A. Faculty

The faculty who teach in the liberal arts program are well-educated in their disciplines and seasoned college instructors. Sixty-six percent of the full-time faculty members have earned a doctorate. Sixty-four percent have taught in their discipline at City Tech for twenty years or more years; only 9%, less than ten years. Annual student opinion surveys of faculty teaching show high ratings, generally excellent and above average in all aspects of classroom instruction. Table 6: Student Evaluation of Teaching provides some key results for the past two semesters. Most full-time faculty are evaluated in the fall and not the spring, so the Fall, 1995 numbers are much larger. These scores are based on a five point scale, with one the most positive. Two particular questions are examined in Table 6 for Fall, 1995: agreement that instructor was effective (question # 11); and agreement that instructor was available for conferences with students (question # 7; generally the lowest rated question). All but two liberal arts departments have an average between strongly agree and agree, which is excellent. The remaining departments clearly average in the agreement range. The spring, 1995 (primarily adjunct) faculty evaluations provide the percentage of students who agree or strongly agree that the class instructor was effective. Four departments are above 90% and two in the high eighties. The sciences tend to have lower ratings, and have been asked to examine their teaching ratings.



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When asked what they consider the strengths of the College, City Tech students usually mention faculty first. Students report faculty care about them and their progress. Faculty are willing to advise and assist students facing difficulties, during their office hours, before and after class, and often beyond these normal times. Table 5D: Student Satisfaction shows that 61% of the liberal arts students are satisfied or very satisfied with the quality of instruction and with faculty respect for students. Ten percent are dissatisfied. New York City Technical College is primarily a teaching institution, proud of its success in carrying out its core mission.

The curriculum vitae following each departmental self-study document the education, professional accomplishments, and teaching experience of the liberal arts faculty. The reader is referred to this impressive record. Many faculty attend meetings in their disciplines, belong to professional associations, and take advantage of professional development opportunities on and off campus. Several faculty regularly offer papers and make presentations in their disciplines or on teaching strategies to professional colleagues. A number of faculty have published books and articles in their fields, often to critical acclaim. The Departmental Self Studies also reveal the extent to which many faculty and departments are constantly striving to improve their teaching methods. Pedagogy is an important concern and accomplishment of the faculty. Faculty have experimented with a great variety of pedagogical strategies and have often adopted new methods after achieving greater success in student learning. A few of the newer effective teaching approaches City Tech liberal arts faculty have tried and adopted include: collaborative learning, student portfolios, small groups, team projects and presentations, massed lectures with smaller group discussions, recitation hours, student learning logs, cooperative learning.

Faculty have also experimented with technology and employ various newer technologies in classroom instruction. Among the means of technology employed regularly by liberal arts faculty are: computer-assisted instruction, graphing calculators in mathematics, computer-simulated laboratory experiments, multi-media, English composition taught utilizing word processing software, and a language laboratory for speech instruction. In chemistry, physics, and mathematics (pre-calculus through the second semester of calculus) special course sections have been offered under the Alliance for Minority Participation program for the past two years. These sections have featured a basic restructuring of the course, focusing on workshop models, collaborative learning, and problem-solving. The degree of teaching innovation and regular experimentation by faculty is an important part of the strength of the liberal arts program.

Adjunct faculty are an increasing part of the College's instructional staff. Many of the strengths of the full-time faculty are also those of the adjuncts. Most have taught at the College for many years and are very experienced teachers. They know our students well and have developed effective pedagogical strategies for achieving success in the classroom. Many part-time faculty also go out of their way to assist students individually outside of the classroom even though they are only paid for their

instructional hours. Employment of part-time faculty also enables the College to obtain for its students skills and knowledge in specialized disciplines that it could not otherwise provide through its full-time faculty. Though the College does not seek to offer a greater number of course sections taught by adjunct instructors, budget constraints have brought this about. The experience, expertise, and effectiveness of the part-time and full-time faculty constitute a very significant strength of the liberal arts program.

B. Curriculum

New York City Technical College provides a very broad and diverse offering of courses for liberal arts students. Table 5D: Student Satisfaction finds liberal arts students overwhelmingly satisfied with the quality of their program of study, the variety of the courses offered, and the flexibility of the degree requirements. Not only do all departments offer introductory college courses in the basic disciplines, each academic department also offers regularly more advanced and specialized courses in the discipline. In English, for example, in addition to many sections of the basic college composition courses, the Department also offers creative and technical writing courses, and a dozen different American, English, and world literature courses, as well as a few specialized courses such as Law through Literature, and Introduction to Journalism. Similarly, introductory courses are offered in all the social science disciplines (anthropology, economics, government, history, psychology, and sociology) and more advanced and specialized courses in each discipline. For example, there are six specialized and more advanced psychology courses that have Introduction to Psychology as a pre-requisite. There are seven more advanced and specialized sociology courses. The same can be said of philosophy and several other humanities subjects. Biology and chemistry offer specialized majors in Chemical Technology and Medical Laboratory Technology and thus have available as electives for other students advanced courses in such subjects as microbiology, organic and analytical chemistry, and anatomy and physiology.

There are other examples of the richness of the liberal arts curriculum at City Tech. Most significant are our offerings in the area of ethnic studies. The African-American Studies Department offers seven African and African-American literature courses and an equal number of social sciences courses specializing in the history, politics, and sociology of Africa and African-Americans. There are also several courses in art, music, theater, and dance offered by this department. Liberal Arts also features the Puerto Rican and Latin American Studies Program. The literature, history, and sociology of Puerto Rican and Latin American peoples comprise the seven courses in this Program. In other ethnic areas, the College offers courses in Asian history and art and Islamic Art. The Humanities Department also provides a rich array of courses for liberal arts students in music, theater, art history, and the performing arts, as well as French and Spanish language instruction from beginning level through two semesters of literature in the language.

Curriculum innovation and updating are further features of the curriculum strength of the liberal arts program. The introductory biology course and calculus sequence are two basic areas where the curriculum has been substantially overhauled and updated in the last two or three years to reflect changes and improvements in the field. The academic departments often develop new courses in response to technical and career departments, such as Law and Society or Health Care Ethics, which can benefit liberal arts students.

Table 5B: Outcomes Attainment shows that, though still satisfactory, the lowest areas of progress are in: using technology, role of science and technology, and global environment. The current revision of the Associate in Arts degree to add an additional semester of science and to require in both liberal arts degrees a new inter-disciplinary capstone course, Science, Technology, and Society, will strengthen the curriculum in these areas. The new Science, Technology, and Society course is presently being developed by a broad-based team of faculty from the social sciences, English, physics, radiology, and engineering technology. The presence of baccalaureate programs, technical and career majors, and regular curriculum innovation and up-dating have resulted in a very rich and diverse curriculum for liberal arts students at New York City Technical College.

C. Student Body

The student body itself is a major strength of the liberal arts program at New York City Technical College. The students are extremely varied in socio-economic background, ethnic and cultural heritage, age, and motivation. This rich diversity naturally spills over into classroom instruction and extra-curricular activities. Students are exposed through daily classroom activities, group learning, team assignments, and class discussion, to very varied viewpoints and people very different from themselves. This is sometimes expressed in Introduction to College course papers where students comment on peers very different from themselves or on their previous educational experience in neighborhood public schools. Gradually students gain a much greater appreciation of the rich ethnic and cultural heritage present every day in this college. Students learn to converse, face, talk to, work with others who are from a very diverse array of groups and backgrounds. Table 5C: Personal Growth shows that among outcomes City Tech liberal arts students attribute the greatest college contribution are: interact well with other cultures, tolerance, deal fairly with a wide range of people, and more effective in multicultural society.

There is also a broad age range in classes. Many students come straight from high school, but a majority have worked for a year or more before entering college. A significant number of students are parents. There is a large group of students who are in their mid to late twenties. There are also older students, ranging from thirty to senior citizen. Some enter from high school because college is seen as the next step, and there are few other viable alternatives. More students come to City Tech after

unfulfilling experiences in the outside world. Many continue in part-time or full-time work and enter College to better themselves and to gain skills for more secure and higher paying careers. A growing number of immigrants attend City Tech to learn the language and culture of their new nation and to re-educate for a new career. Most students want a better life for themselves and their families. Their varied levels of maturity, their experiences in life, and their previous jobs further enrich the student body and the experience of each student at City Tech. A more diverse student body could hardly be devised; it is a real strength and pride of this institution. This student diversity helps the program achieve its multicultural goals.

D. Extra-Curricular

The College, through both faculty and student services activities, provides a broad range of extra-curricular opportunities for City Tech students. These include student government, ethnic (Vietnamese, Caribbean, Haitian, Chinese, for example) and career (Medical Laboratory Technology and Legal Assistant, for example) clubs with faculty advisors, but also a number of activities promoted and sponsored by the liberal arts faculty. Several departments regularly organize discipline clubs, such as the Mathematics Club and the Chemistry Club, which offer opportunities for social engagement with fellow students and faculty advisors and for learning more about the particular discipline. The Mathematics Club conducts competitions with other colleges in mathematics problem-solving. Theaterworks, organized by the performing arts and theater faculty, presents several plays and performances each year for students who want to act or assist backstage. The English Department holds open poetry readings and presents awards for student writing in drama, poetry, short story, and essay. These activities encourage student interest and engagement beyond the classroom.

The Liberal Arts Cross-cultural Committee organizes and presents six to eight varied cultural events each year. Examples this academic year have included "Colonial Architecture of Puerto Rico," Japanese music ("Sounds of the Shakuhachi"), "The Belle of Amherst" (Emily Dickinson), Black Folklore and Medicine. The African-American Studies faculty take the initiative to help the College celebrate Black History Month and other historical occasions. Examples include the annual Kwanzaa celebration, an African Bazaar, an African Folklore talk, and displays of the work of African and African-American artists. Similarly, faculty in the Puerto Rican and Latin American Studies program have organized a film series, a display of etchings, Latin American poets reading their poetry, etc. All these activities add to the variety and richness of the education of liberal arts students. For these reasons, the extra-curricular offerings are an important strength of the liberal arts program in this non-resident college.



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E. Standards and Achievement

A final important strength of the liberal arts program is the development and maintenance of academic standards. This is most apparent in the placement testing system and establishment and enforcement of exit standards from remediation. Since approximately eighty percent of entering students take at least one developmental or ESL course and around sixty percent take two such courses, these serve as the gate-keeper courses. For the past decade or more the same standardized instruments and testing procedures have been used throughout the City University of New York for placement into and exit from high school level courses in reading, writing, and mathematics for academically underprepared students. The only significant change in these standards in this period was the requirement of passing a course final as well as the University Mathematics Assessment Test for satisfactory completion of developmental mathematics at City Tech.

Students are considered "certified" upon achieving a satisfactory score on these three tests. Certification was originally intended by the university as the standard for associate degree completion, or readiness to undertake junior/ upper division level academic work. Many CUNY colleges require certification for associate degree graduation and for advancement into the junior year. However, these standards are really closer to high school graduation level (often tenth or eleventh grade reading or mathematics, for example) and at New York City Technical College are considered necessary to begin college level work. For this reason the liberal arts faculty require certification as a pre-requisite for admission into most introductory college courses. For example, a student must be certified in reading and writing to take introductory social science courses or English composition. Students must be certified in mathematics before they can begin the college level mathematics sequence.

Given the poor level of academic preparation of most entering students, these are often perceived as relatively high and rigid standards. Unfortunately many students do not complete their developmental courses. Students often become discouraged with their lack of success and leave the college. The rigid enforcement of these academic standards is a major cause of attrition at our college. However, these standards assure students' readiness to undertake college level work. Major efforts have gone into helping improve the success rate of developmental courses and into getting students through these courses faster. We are currently trying to improve linkages of developmental and college level courses and open up entry-level career and technical courses to students who are not fully certified in order to establish closer contact with the major. We believe these efforts will enhance student success and encouragement and will lower the attrition rate.

On the other hand, development and enforcement of clear academic standards have forced our students to perform academically and result in graduates who can perform on the job and in baccalaureate programs. The Assessment results from student surveys, alumni, and departments demonstrate academic achievement and

skill mastery. The faculty believe in maintaining appropriate academic standards at all levels. This is a major strength of the liberal arts program.

## IV. AREAS FOR IMPROVEMENT

A review of the assessment data and study of the departmental self-studies reveal five particular areas that could improve the Liberal Arts Program. These are: "ownership," admissions, resources, retention, and assessment. Each of these topics is discussed below and proposals for implementation are suggested.

### A. "Ownership"

The term "ownership" is placed in quotation because programs are not strictly "owned." But this term is used to raise several questions, such as who considers themselves responsible for the liberal arts program, who takes pride in this program, who works for improvement in the program, who champions the liberal arts students? All other academic programs at New York City Technical College and at most colleges are operated by a particular academic department. For example, the Legal Assistant Studies Department is responsible for the Legal Assistant Program and considers legal assistant studies majors to be "their" students. Similarly, on most campuses the sociology department is responsible for the sociology major and looks after students who choose this concentration. In this instance, however, there is no liberal arts department. There is a Liberal Arts and General Education academic division; there is also a Science and Mathematics division, both headed by the same Dean. This Dean and these two divisions are responsible for six different academic programs, one of which is liberal arts. There is also a Liberal Arts Program Coordinator, a faculty member who receives partial release time primarily to coordinate the advisement of liberal arts students and review and approve changes of program and course substitutions.

Most liberal arts departments consider themselves "service" departments, i.e., they provide courses for students in various career and technical disciplines outside their department. A few liberal arts departments also have their own majors, viz, computer science in Mathematics, chemical technology and medical laboratory technology in Physical and Biological Sciences, and most recently, stage technology in Humanities. Most liberal arts faculty do not consider liberal arts students to be "their majors." Liberal arts students often take only a single course in a particular liberal arts department, and there is little interaction with faculty in that department beyond that single course. Occasionally liberal arts students do establish deeper and more long-lasting relationships with liberal arts faculty, but this is more a personal dynamic than a result of program structure or organization.

It is felt that the liberal arts program would be strengthened if faculty in liberal arts departments identified with the program and its students to a greater degree.

There are a few two-year colleges that offer program concentrations or options for associate degrees in the liberal arts. This is one possible way to have students select a "major" or concentration within liberal arts that is department-based. Other means to achieve greater program "ownership" might include enhanced liberal arts departmental identity with the degree program and more successful efforts to keep students with the same liberal arts advisor.

B. Program Admission/Selection

Current admission of students into the liberal arts program presents a few problems. One is the selection of liberal arts by students who really want another major, such as a health profession, and see this as a route toward their goal. A second problem is students who do not succeed in getting into their first choice major and then select or transfer into liberal arts as a half-hearted fallback. There are also students who do not know what they want to major in, and someone advises them to select liberal arts, which only serves as a waiting station. All three of these categories of students are not likely to complete the liberal arts program and do contribute to the high level of attrition from the program.

It is possible to live with these problems, which are not uncommon to liberal arts programs in comprehensive two- and four- year colleges. However, it might be possible to study this issue in greater detail and consider ways to improve program selection. One partial solution might be to set up other majors for students who are undecided or who really want a different career thrust. A second tactic would be improved and more stringent advisement. In this instance students would be told they must follow the liberal arts curriculum rigidly with no electives allowed until after achieving thirty credits. Further, program audits would enforce compliance. Whether these possible solutions are feasible or cost effective must be scrutinized.

C. Resources

Inadequacy of resources is probably the most serious concern facing the liberal arts program at the present time. It is also the area where it would seem the college has the least control. The departmental self-studies clearly report the litany of problems resulting from reduced College budgets. The continuation of a declaration of fiscal exigency into a second year, with no resolution of the state's fiscal problems in sight, increases the degree of concern and unease with this situation.

The problems resulting from insufficient funding are serious and growing. In the area of human resources, the number of departments where more than half the sections are taught by adjunct faculty is increasing. In addition, the average age of the faculty continues to grow higher. New and younger faculty replacements for retiring faculty would help to revitalize and add new blood and thinking to long-established departments. Only six new full-time faculty have been hired into liberal

arts in the past three years, while the number of faculty retirees last year alone was seventeen.

Another direct result of budget reductions has been the growing size of classes. This trend has been going on for two decades, accelerating in the past two years with the recent fiscal downsizing. City Tech students arriving with severely inadequate academic preparation need considerable individual attention and assistance. Such help is increasingly difficult to obtain when faculty commonly have one hundred fifty to two hundred students per semester. Though there are no indicators yet of a reduction in student learning due to increased class size, the faculty feel that the quality of education cannot be maintained indefinitely under such circumstances. We know from focus groups conducted by the Developmental Task Force that students also believe that smaller classes contribute to learning.

The final major area seriously hurt by fiscal constraints is equipment. Technology used in the business and work world and for instruction is growing exponentially. Many of our current computers and several pieces of laboratory equipment are out-dated and need replacement. Many faculty do not have access to computers, and few have access to the Internet or World Wide Web. Only a few faculty are able to offer instruction via computer equipment. More want to. Our students and faculty are missing out on the latest technological advances. This is a primary reason the program is not fully successful in achieving the computer literacy goal for all graduates. Our students will not be adequately prepared for the world of work if additional and new equipment is not purchased soon. Some progress has been made in the purchase of computers and laboratory equipment, but not enough has reached liberal arts faculty and students.

There is no easy solution to this problem. The College has attempted to be creative in finding new and cheaper ways to deliver instruction. But the basic problem is beyond most faculty and staff in liberal arts, or higher education administrators, to solve. The public and their elected representatives must realize the value and great importance of higher education to the future of our society, and be prepared to invest substantially greater sums for human capital and collegiate infrastructure. Only then can we adequately fund public colleges and universities.

D. Rate of Program Completion

The current rate of graduation is too low. To have only between ten and twenty percent of the students enrolled in liberal arts complete their degree is really not acceptable. There are a number of reasons why this rate is low, including enrollment of students who really do not belong in liberal arts, as was discussed above. The presence of students who do not intend to complete the program, of course, lowers the graduation rate. Perhaps implementation of the suggestions above will move some misplaced students out of the program. Or perhaps a way can be found to identify students whose career and/or program major goals are elsewhere so that these students can be removed for statistical purposes, thus improving the graduation rate.



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There are also some students who are talented and prepared academically but who leave the program before completion. Some of the best liberal arts students transfer from City Tech to four-year baccalaureate programs before receiving their associate degree. More research needs to be done on this group. Design of an exciting and comprehensive honors program might retain and attract more talented students by providing extra challenge.

Though we know many students arrive with both inadequate academic preparation and inadequate study skills and motivation, there is still more that can be done to help a greater percentage of these students succeed. Ways must be found for the college and the liberal arts faculty to help these students to succeed and fulfill their higher education goals. The Developmental Education Task Force and the Mathematics Task Force last year studied important issues. The recommendations of these task forces are now being implemented, except where the resources are not available.

Finally, not enough research is available to better identify and classify liberal arts students and their motives and desires for higher education. Additional research might allow the College to better understand these students and improve attrition data for the liberal arts program. The College wants a higher rate of graduation in the liberal arts program.

E. Outcomes Assessment

This review is the first major attempt of liberal arts faculty at New York City Technical College to employ outcomes assessment. The process has been helpful and a learning opportunity. Considerable data has been gathered to inform us of what has worked and what needs improvement. Some data point to the need for a greater focus on career exploration and connections, use of computers, and preparation for baccalaureate programs. Other data indicate that liberal arts students do well after transferring and use the skills learned in the program on the job very often. Not all of our efforts at outcomes assessment worked. We have discovered there is much more to do. The College is seeking better ways to generate useful data, especially to track liberal arts students on campus and those who transfer within CUNY. We know that outcomes assessment is not an end in itself but an ongoing process. This review has enabled us to begin our journey.

The Liberal Arts Assessment Committee is committed to continuing its efforts. The Dean and chairs of the liberal arts departments have found the process useful and will be incorporating assessment efforts increasingly into ongoing review and evaluation efforts. The Liberal Arts Assessment Committee is developing a list of assessment projects to undertake in the next academic year with the involvement of the departments. The current effort will serve as a benchmark for further growth and improvement in outcomes assessment. It is important that continued progress be made in incorporating outcomes assessment into our thinking and our regular activities.

APPENDIX A

## Mission Statement

New York City Technical College is the designated technical college of The City University of New York, offering both baccalaureate and associate degrees. It serves the city and the state by providing highly trained and technically proficient graduates in the fields of business, communications, arts, and engineering technologies; community, social service and health professions; and technical and occupational education. The college provides unique access for higher education to New York City's diverse population. The college also serves the community by developing partnerships aimed at improving the competitiveness of local businesses and the quality of life in the surrounding communities.

Education at New York City Technical College provides students with a command of applied skills in established and emerging technical fields requiring a solid grounding in the supporting scientific and mathematical theory. All degree programs contain a liberal arts and science core curriculum, designed to foster intellectual curiosity, an appreciation for the aesthetic dimension of life and work, and a respect for the contributions of other cultures. Students avail themselves of opportunities to explore different work environments in their chosen field through internships at both degree levels. The college further encourages student growth and development through an array of services such as academic and career advisement counseling, student government, student activities and recreational programs.

## Goals

The goals of a City Tech education can be grouped under three headings: career goals, life skills goals and citizenship goals.

### Career goals

A City Tech graduate will

- enter the workplace as a competent technical preprofessional or professional
- function well in a variety of work environments.
- possess the capacity to grow and change professionally throughout his or her career.
- communicate clearly in written or oral presentation
- work well as a member of a team
- apply an attitude of inquiry and curiosity to the tasks assigned.



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- apply problem-solving techniques to the work at hand

Life Skills Goals

The graduate will

- possess a solid understanding of the scientific and technical framework within which modern society functions.
- have a high degree of information literacy, with knowledge of information technology, and of how to seek, obtain and utilize information for self-learning, problem solving and personal growth
- possess an understanding of the aesthetic dimension of life and work and an appreciation of other cultures

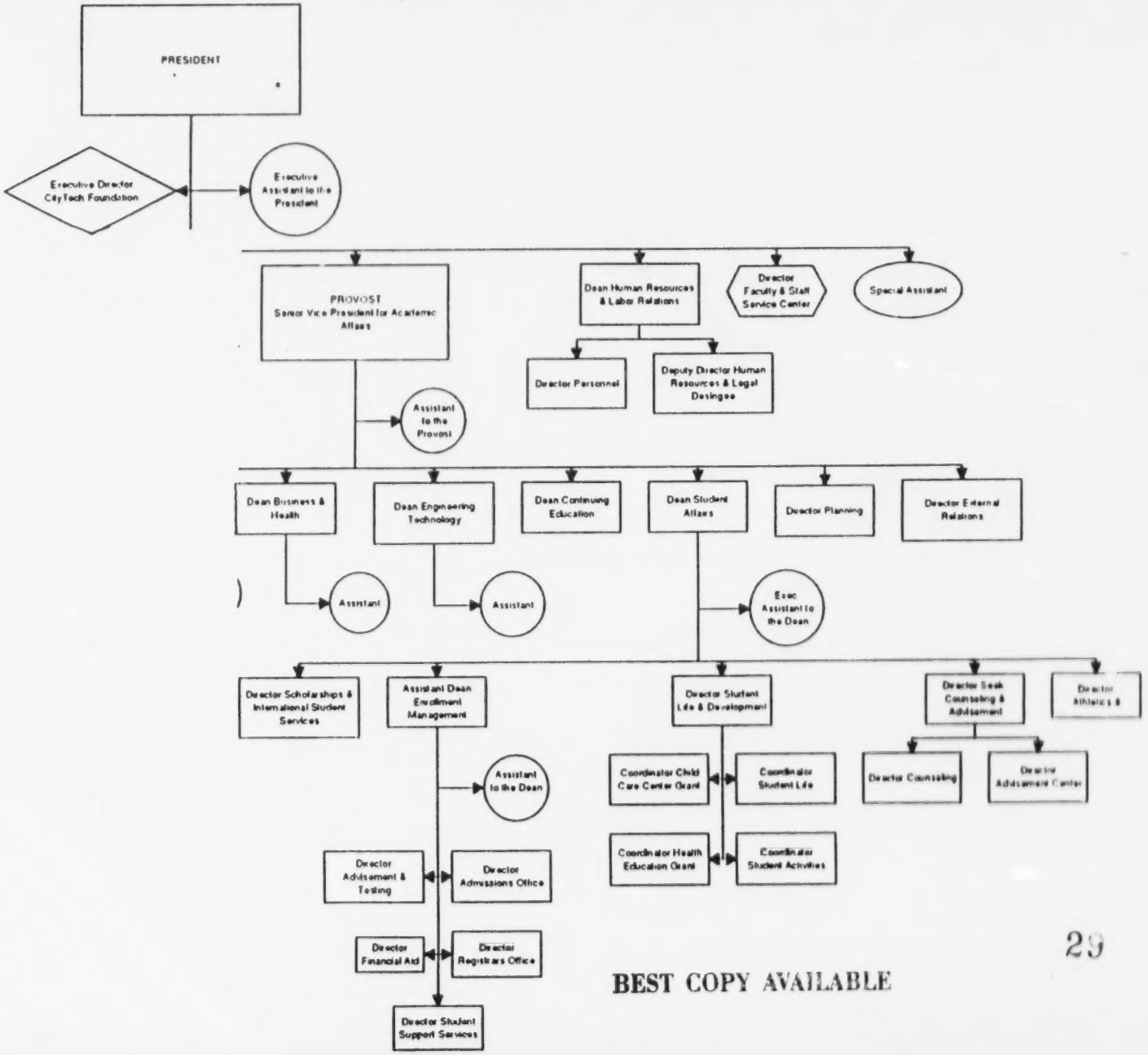
Citizenship Goals

The graduate will

- be aware of the surrounding and wider community
- demonstrate an awareness of the economic, societal and cultural changes in the environment
- show an understanding of the ethical dimension to decisions at work or in one's personal life

3/22/96
APP Committee
as revised per deans' meeting

APPENDIX A
NEW YORK TECHNICAL COLLEGE
City





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APPENDIX B

Spring, 1996

| DEPARTMENT | NAME |
|---|---|
| African American Studies | Prof. Steve Panford |
| Physical and Biological Sciences | Prof. Barbara Johnson<br>Prof. Carlos Estol |
| Developmental Skills | Prof. Frank Gelbwasser, Chair |
| English | Prof. Regina Lebowitz |
| Humanities | Prof. Rigofredo Granadous |
| Mathematics | Prof. Johanna Ellner |
| Social Science | Prof. Steve Gerardi<br>Prof. Cheryl Blackman |

## APPENDIX B

Spring, 1996

Liberal Arts Department Chairs/Coordinators

| DEPARTMENT/PROGRAM | CHAIR/COORDINATOR | EXT | ROOM |
|---|---|---|---|
| Arts and Sciences | Dean David Entin | 5008 | N805 |
| Associate Administrator | Ms. Jocelyne Castro | 5008 | N805 |
| African American Studies | Prof. Diane Wilson | 5205 | A643 |
| Physical & Biological Sciences | Prof. Daria Bouadana | 5276 | N811 |
| College English as a Second Language | Prof.Alice Richardson | 5208 | N523 |
| Developmental Skills | Prof. Peter Deraney | 5781 | N826 |
| English | Prof. Brian Keener | 5392 | N512 |
| Humanities | Prof. Lou Rivers | 5018 | A630 |
| Mathematics/Computer Science | Prof. Marjorie Tenner | 5380 | N711 |
| Puerto Rican Studies | Prof. Carmen Valle | 5202 | A642 |
| Social Science | Prof. Steve Alden | 5080 | N611 |
| Coordinator of Liberal Arts | Prof. Earl Hill | 5014 | N602B |
| Freshman Year Program | Prof. Regina Robin | 5082 | N602B |

**NEW YORK CITY TECHNICAL COLLEGE**
**OF THE CITY UNIVERSITY OF NEW YORK**

**LIBERAL ARTS DEGREE PROGRAMS**
**SPRING 1996**

CURRENT STATEMENT OF REQUIREMENTS FOR THE ASSOCIATE IN ARTS DEGREE*

REQUIRED COURSES

| COURSE CODE | | COURSE TITLE | CLASS HOURS | LAB HOURS | TOTAL HOURS | CREDITS |
|---|---|---|---|---|---|---|
| **HE** | **101** | **Health Education*** | **2** | **0** | **2** | **2** |
| EG | 101 | English Composition I | 3 | 0 | 3 | 3 |
| EG | 121 | English Composition II | 3 | 0 | 3 | 3 |
| | | | | | **Subtotal** | **8** |

REQUIRED AREAS OF STUDY:

| | CLASS HOURS | LAB HOURS | TOTAL HOURS | CREDITS |
|---|---|---|---|---|
| **ART** | **3** | **0** | **3** | **3** |
| FOREIGN LANGUAGE I | 3 | 0 | 3 | 3 |
| FOREIGN LANGUAGE II | 3 | 0 | 3 | 3 |
| FOREIGN LANGUAGE III | 3 | 0 | 3 | 3 |
| HISTORY I | 3 | 0 | 3 | 3 |
| HISTORY II | 3 | 0 | 3 | 3 |
| LITERATURE | 3 | 0 | 3 | 3 |
| MATHEMATICS (MA275 or higher) | 4 | 0 | 4 | 4 |
| **MUSIC** | **3** | **0** | **3** | **3** |
| **PHYSICAL EDUCATION*** | **3** | **0** | **3** | **3** |
| PHILOSOPHY | 3 | 0 | 3 | 3 |
| SCIENCE | 3 | 3 | 6 | 4 |
| SPEECH | 3 | 0 | 3 | 3 |
| SOCIAL SCIENCE | 3 | 0 | 3 | 3 |
| BEHAVIORAL SCIENCE | 3 | 0 | 3 | 3 |
| | | | **Subtotal** | **47** |

ELECTIVES

| | | | | |
|---|---|---|---|---|
| FREE ELECTIVE | 3 | 0 | 3 | 3 |
| FREE ELECTIVE | 3 | 0 | 3 | 3 |
| FREE ELECTIVE | 3 | 0 | 3 | 3 |
| | | | **Subtotal** | **9** |

**TOTAL CREDITS REQUIRED FOR DEGREE** **64**

*As of Fall '95 health education was no longer available to liberal arts majors and phy. education was no longer offered at the college.

**NEW YORK CITY TECHNICAL COLLEGE**
**OF THE CITY UNIVERSITY OF NEW YORK**

**LIBERAL ARTS DEGREE PROGRAMS**

**PROPOSED STATEMENT OF REQUIREMENTS FOR THE ASSOCIATE IN ARTS DEGREE AS OF FALL 1996**

**REQUIRED COURSES**

| COURSE CODE | | COURSE TITLE | CLASS HOURS | LAB HOURS | TOTAL HOURS | CREDITS |
|---|---|---|---|---|---|---|
| EG | 101 | English Composition I | 3 | 0 | 3 | 3 |
| EG | 121 | English Composition II | 3 | 0 | 3 | 3 |
| **AS** | **401** | **Science, Tech., Society** | **3** | **0** | **3** | **3** |
| | | | | | **Subtotal** | **9** |

**REQUIRED AREAS OF STUDY:**

| | CLASS HOURS | LAB HOURS | TOTAL HOURS | CREDITS |
|---|---|---|---|---|
| **ART/MUSIC** | **3** | **0** | **3** | **3** |
| FOREIGN LANGUAGE I | 3 | 0 | 3 | 3 |
| FOREIGN LANGUAGE II | 3 | 0 | 3 | 3 |
| FOREIGN LANGUAGE III | 3 | 0 | 3 | 3 |
| HISTORY I | 3 | 0 | 3 | 3 |
| HISTORY II | 3 | 0 | 3 | 3 |
| LITERATURE | 3 | 0 | 3 | 3 |
| MATHEMATICS (MA275 or higher) | 4 | 0 | 4 | 4 |
| PHILOSOPHY | 3 | 0 | 3 | 3 |
| SCIENCE A1* | 3 | 3 | 6 | 4 |
| SCIENCE A2* | 3 | 3 | 6 | 4 |
| SPEECH | 3 | 0 | 3 | 3 |
| SOCIAL SCIENCE | 3 | 0 | 3 | 3 |
| BEHAVIORAL SCIENCE | 3 | 0 | 3 | 3 |
| | | | **Subtotal** | **45** |

**ELECTIVES**

| | | | | |
|---|---|---|---|---|
| FREE ELECTIVE | 3 | 0 | 3 | 3 |
| FREE ELECTIVE | 3 | 0 | 3 | 3 |
| | | | **Subtotal** | **6** |

**TOTAL CREDITS REQUIRED FOR DEGREE** **60**

*A full year sequence in the same laboratory science is required

NEW YORK CITY TECHNICAL COLLEGE
OF THE CITY UNIVERSITY OF NEW YORK

LIBERAL ARTS DEGREE PROGRAMS
SPRING 1996

CURRENT STATEMENT OF REQUIREMENTS FOR THE ASSOCIATE IN SCIENCE DEGREE*

REQUIRED COURSES

| COURSE CODE | | COURSE TITLE | CLASS HOURS | LAB HOURS | TOTAL HOURS | CREDITS |
|---|---|---|---|---|---|---|
| **HE** | **101** | **Health Education*** | **2** | **0** | **2** | **2** |
| MA | 475 | Calculus I | 4 | 0 | 4 | 4 |
| MA | 575 | Calculus II | 4 | 0 | 4 | 4 |
| EG | 101 | English Composition I | 3 | 0 | 3 | 3 |
| | | | | | **Subtotal** | 13 |

REQUIRED AREAS OF STUDY:

| | CLASS HOURS | LAB HOURS | TOTAL HOURS | CREDITS |
|---|---|---|---|---|
| SCI A1** | 3 | 3 | 6 | 4 |
| SCI A2*** | 3 | 3 | 6 | 4 |
| SCI B1** | 3 | 3 | 6 | 4 |
| SCI B2*** | 3 | 3 | 6 | 4 |
| LITERATURE | 3 | 0 | 3 | 3 |
| PHILOSOPHY | 3 | 0 | 3 | 3 |
| SS I SOCIAL SCIENCE | 3 | 0 | 3 | 3 |
| SS II BEHAVIORAL SCIENCE | 3 | 0 | 3 | 3 |
| COMMUNICATION | 3 | 0 | 3 | 3 |
| **PHYSICAL EDUCATION*** | **2** | **0** | **2** | **2** |
| | | | **Subtotal** | 33 |

ELECTIVES

| | | | | | |
|---|---|---|---|---|---|
| LASC: | Liberal Arts, Sciences, or Computer Sciences | 18 | 0 | 18 | 18 |
| | | | | **Subtotal** | 18 |

**TOTAL CREDITS REQUIRED FOR DEGREE** **64**

*As of Fall '95 health education was no longer available to liberal arts majors and phy. education was no longer offered at the college.
**Begin a year's sequence with BY101/CH110/SC201/SC441.
***Complete the year's sequence with BY201/CH210/SC202/SC442.

NEW YORK CITY TECHNICAL COLLEGE
LIBERAL ARTS DEGREE PROGRAMS

PROPOSED STATEMENT OF REQUIREMENTS FOR THE ASSOCIATE IN SCIENCE DEGREE AS OF FALL 1996

REQUIRED COURSES

| COURSE CODE | COURSE TITLE | CLASS HOURS | LAB HOURS | TOTAL HOURS | CREDITS |
|---|---|---|---|---|---|
| MA 475 | Calculus I | 4 | 0 | 4 | 4 |
| MA 575 | Calculus II | 4 | 0 | 4 | 4 |
| EG 101 | English Composition I | 3 | 0 | 3 | 3 |
| AS 401 | Science, Technology and Society | 3 | 0 | 3 | 3 |
| | | | | **Subtotal** | **14** |

REQUIRED AREAS OF STUDY:

| | CLASS HOURS | LAB HOURS | TOTAL HOURS | CREDITS |
|---|---|---|---|---|
| SCI A1* | 3 | 3 | 6 | 4 |
| SCI A2** | 3 | 3 | 6 | 4 |
| SCI B1* | 3 | 3 | 6 | 4 |
| SCI B2** | 3 | 3 | 6 | 4 |
| LITERATURE | 3 | 0 | 3 | 3 |
| PHILOSOPHY | 3 | 0 | 3 | 3 |
| SS I SOCIAL SCIENCE | 3 | 0 | 3 | 3 |
| SS II BEHAVIORAL SCIENCE | 3 | 0 | 3 | 3 |
| COMMUNICATION | 3 | 0 | 3 | 3 |
| | | | **Subtotal** | **31** |

ELECTIVES

| | | | | | |
|---|---|---|---|---|---|
| LASC: | Liberal Arts, Sciences, or Computer Sciences | 18 | 0 | 18 | 15 |
| | | | | **Subtotal** | **15** |

**TOTAL CREDITS REQUIRED FOR DEGREE** **60**

*Begin a year's sequence with BY101/CH110/SC201/SC441.
**Complete the year's sequence with BY201/CH210/SC202/SC442.

## Resume

**DAVID HUDSON ENTIN, Ph.D.**
**156 Prospect Park West**
**Brooklyn, New York 11215**
**(718) 768-7573**

**Current Position, Dean, Arts and Sciences, New York City Technical College**

### 1. WORK HISTORY

**A. 1994-Present:** Dean of Instruction, New York City Technical College of the City University of New York, Brooklyn, New York. Responsible for the management of two academic divisions, Liberal Arts and Sciences, including eleven departments, 150 full-time faculty, and six degree programs (liberal arts and science, chemical technology, medical laboratory technology, legal asssistant studies, computer science) with approximately three thousand students. Also responsible for general education, developmental education, and the core curriculum. Leadership activities include: chair of Mathematics Task Force, co-chair Developmental Education Task Force, member of CUNY Assessment Policy Committee, workshop presentations on Total Quality Management in Higher Education and in the Classroom.

Accomplishments: direct special project and study multiple repeating students; revise and de-centralize academic advising system; issue major reports on developmental education and mathematics instruction; initiate assessment activities. Member: Council of Deans, College Academic Council, College Curriculum Committee, College Council (Governance body), Middle States Accrediation Steering Committee, Academic Planning Committee, CUNY AMP Steering Committee.

**B. 1990-1993**: Wentworth Institute of Technology, Boston, Massachusetts.
Dean, College of Arts and Sciences (1990-1992) and Assistant Provost (1993). Responsibilities: management of College with 50+ faculty and five departments: Mathematics, Computer Science, Physics, Humanities/Social Science, Management Science and Learning Center. Promote faculty professional development and teaching excellence; initiate and edit faculty newsletter; administer $4.3 million budget; improve College governance and administration; implement new Technical Communications program curriculum; totally revise Computer Science Curriculum.

Other Accomplishments: Founded and chaired Institute Retention Task Force; conduct research and publish three reports on retention; devise Early Alert and mentor programs for entering students; chair faculty committee which createdFreshman Seminar course; teach and evaluate pilot College Success seminar; create new and strengthened academic advising system; develop and edit newsletter on academic advising and faculty development; oversee commencement planning and implementation; help departments design academic assessment procedures and instruments and draft report on assessment for accrediting bodies; taught at least one course each semester.

**Resume: David Hudson Entin (Continued)**

**C. 1983-1989:** Massasoit Community College, Brockton, Massachusetts. Director of Research and Development (1983-84); Assistant Dean of Academic Affairs (1985-87); Associate Dean of Academic Affairs (1988-1989).
Responsibilities: strategic planning; grant and new program development; program administration; institutional research; supervision of two academic divisions (Business Administration and Science/Math); academic testing and assessment; administration of student evaluations of faculty.

Accomplishments: increased external funding resources four-fold over a two-year period; provided procedures and training for business advisory committees; supervised academic program reviews; managed major institutional strenthening grant program that resulted in adoption of a core curriculum for the College; chaired Long-Range Planning Committee and drafted Long Range (Five-Year) Plan; developed new programs serving non-traditional populations; founded and chaired statewide Council for Resource Development; taught one course each semester.

**D. 1974-1982**: Deputy Commissioner/Administrator, Division of Social and Economic Opportunity, Massachusetts Executive Office of Communities and Development. 1) Manage a division of state government with 40-60 employees and budgets (state and federal funded) increasing in a nine year period from $2 million to $120 million annually; 2) Reorganize division and develop programs promoting self-sufficiency of low-income people focusing on energy, community economic development, food, and citizen participation; 3) As State Economic Opportunity Office Director, coordinate statewide anti-poverty efforts, including advocacy, advising state and federal officials, and technical assistance and training for Community Action Agencies, Community Development Corporations, and neighborhood organizations; 4) Operate, through contracts and monitoring of community-based agencies, field assistance, weatherization, Community Services Block Grant, Commonwealth Service Corps, and Community Enterprise Economic Development programs; 5) Other responsibilities; influence state and federal program guidelines and legislation, serve on Board of Community Development Finance Corporation, Special Commission on the Concerns of Vietnam Veterans, Office for Children Statewide Advisory Council, National Association of State Community Services Programs (Vice-chairperson, 1981-1983).

**E. 1972-1973**: Executive Director, Cambridge Economic Opportunity Committee, Inc. 1) Direct operation of major Community Action Agency under policy guidance of 48-member Board; 2) Manage $1.5 million program with community organization, employment and training, day care, Head Start, health care, elderly and youth services components; 3) Work with local and federal officials in successfully advocating and developing new family planning, drug abuse, housing, delinquency prevention, and home care programs responding to low-income community needs.

**F. 1970-1971**: Deputy Director, Greater Jacksonville Economic Opportuity Inc. Serve as second in command, responsible for day-to-day administration of large Community Action Agency with 500 employees and $7 million annual budget.

**G. 1968-69**: Director, Community Relations Commission, City of Jacksonville, Florida. Organized and served as first staff director of official city commission responsible for race relations in a large Southern city. Successfully conducted training and established mechanisms to handle racial tension and promote increased dialogue, understanding, and integration in housing, employment, and police-community relations.

**H. 1966-1968**: Assistant Provincial Representative, U.S. Agency for International Development (AID), Vietnam: 1) Served as second in command in large provincial AID community development program with up to 40 American staff and 200 local staff; 2) Responsible for provincial planning and operation of self-help, public works, education, agriculture, refugee, public health, youth, and social welfare components: 3) Advise local officials on administration and program operations; 4) Promoted to regional headquarters to plan, evaluate, and report on community development program progress in five provinces.

**I. 1964-1966:** Responsible for research, planning, program development and drafting first rural Community Action Program (CAP) in the nation, in Eastern North Carolina, and development of first urban CAP in Jacksonville, Florida.

## II. RELATED AND OTHER ACTIVITIES/ACCOMPLISHMENTS

**A.** Visiting Fellow, New England Resource Center for Higher Education, 1992-3. Conducted and presented research on application of total quality management in higher education.

**B.** Published articles on early anti-poverty efforts (1964-65), school desegregation (1972-73), and higher education (1990+).

**C.** Public information and marketing experience: on TV and radio programs, newspaper and newsletter articles, workshop conduct and facilitation, public speaking; testified before Congressional committees.

**D.** Previous Membership and/or officer: NAACP, Urban League Board of Directors, National Association of Social Workers, National Association of Intergroup Relations Officials, National Association for Community Development; Chair, Cambridge Industrial Development Finance Authority; Advisory Board, Massachusetts Faculty Development Consortium; Boston Higher Education Partnership; academic representative, College Board.

**E.** Current: Council of Colleges of Art and Sciences; Academic Affairs Administrators, Northeast Region; American Association of Higher Education; Continuous Quality Improvement Research Task Force; Advisory Committee, National Science Foundation Funded-funded Mathematics for Technology project.

**F.** Consultant on school desegregation for Massachusetts Department of Education; Consultant to National Governors Association on implementation of Community Service Block Grant; Consultant to and trainer for non-profit organizations on management, planning, evaluation, and governance issues.

**G.** College success courses manuscript reviewer, Wadsworth Publishing Company, Belmont, California, 1995-present.

III. **EDUCATION**

**A.** Doctor of Philosophy, Program in Applied Social Science/Sociology, Boston University, 1987. Fields of concentration: social policy and organizations. Dissertation title: "Missions of Antipoverty Organizations: Change and Survival."

**B.** Master of Public Administration, John F. Kennedy School of Government, Harvard University, 1972.

**C.** Master of Arts in History, University of North Carolina at Chapel Hill, 1963. Major: American History; minors: European history, American literature.

**D.** Bachelor of Arts (cum laude), Princeton University, 1962. Major: History and Special Program in American Civilization; Minor: Asian Studies.

PUBLICATIONS: DAVID HUDSON ENTIN

"Whither TQM: Ten Boston Colleges One Year Later," The Center for Quality Management Journal, Volume 3, Number 3, Education Edition 1994, published by the Center for Quality Management, Cambridge, Massachusetts

"A Second Look, TQM in Ten Boston-Area Colleges, One Year Later," Change: The Magazine of Higher Learning, Volume 46, Number 3 (May 1994), published by the American Association of Higher Education.

"New York: What a Strange Place," Perspectives, Volume XVII. 1994/1995, City Tech Press of New York City Technical College.

"Boston: Less Than Meets the Eye," Change: The Magazine of Higher Learning, Volume 45, Number 3 (May/June, 1993), published by the American Association of Higher Education.

"TQM and Higher Education: A Preliminary Look at Ten Boston Area Institutions," published as Working Paper # 11, by the New England Resource Center for Higher Education, Winter, 1993; and in the Center for Quality Management Spring, 1993 Journal, Vol. 2, Number 2.

"Restructuring the Academe: A Radical Proposal, " Context, Volume 5, Number 1, 1992, Wentworth Institute of Technology, College of Arts and Sciences.

"The Peristroika Crisis in the Soviet Union, "Context, Vol. 4, Number 1, 1990, Wentworth Institute of Technology, College of Arts and Sciences.

"Standard Planning Techniques for Desegregation, " Integrated Education (Chicago: Integrated Education Associates), Vol. XI, No. 2, March-April, 1973. pp. 43-53.

"The Black Burden in Desegregation," Integrated Education (Chicago: Integrated Education Associates), Vol. X, No.4, July-August, 1972, pp. 3-19.

"North Carolina County Paces Nation in Community Action Against Poverty," The County Officer (Washington, D.C.: National Association of Counties), Vol. 30, No. 2, February, 1965.

"A Local Community's Attack on Poverty," New Wine: A Christian Journal of Opinion (Chapel Hill, N.C.: Westminster Foundation, University of North Carolina), Vol. XXVIII, No. 2, April, 1965.



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APPENDIX D

CURRICULUM VITAE

Earl A. Hill, Ph.D.

Developmental Skills Department
New York City Technical College

RECOMMENDATION FOR: Promotion to Professor Effective January '95
SALARY as of January 1, 1995: $64,601

EDUCATION

| Institution | Dates | Degree & Major |
|---|---|---|
| Mobile State Jr. Col | 1956 - 58 | A.S. in Math., 1958 |
| Alabama State Univ. | 1958 - 60 | B.S. in Math., 1960 |
| Atlanta University | Sum '61 & '62. 1963 - 1964 & Sum. '70 | M.S. in Math., 1964 |
| New York University | 1971 - 83 | Ph.D. in Higher Ed., 1983 |

EXPERIENCE

| Institution | Dates | Rank & Department |
|---|---|---|
| N.Y. City Tech. Col. (CUNY), 300 Jay St. Bkln., N.Y. 11201 | 1973 - Present | Assoc. Prof.; Dev'l Skills |
| Mobile Sta. Jr. Col. Mobile, Ala. | 1966-1971 | Chairman of Dept. of Mathematics |
| Albany State Col. Albany, GA | 1964 - 1965 | Instructor of Math. |
| Cleveland Board of Ed., John Adams High School, Cleveland, OH | 1962 - 1963 | Teacher of Math. |
| Mobile County School Bd., Mobile, AL | 1960 - 1962 | Teacher of Math. |

BRIEF AMPLIFICATION

N.Y. City Technical College - - - Associate Professor in Department of Developmental Skills, teaching basic math and elementary algebra courses for last 21 years. I have also taught elementary statistics, intermediate algebra., and trigonometry as an adjunct in the regular mathematics department.

Mobile State Jr. College - - - Served as Chairman of the department for five years. Taught a full range of courses from remedial arithmetic up to calculus and differential equations. Developed and put into operation the first remedial/developmental program in mathematics at the college, setting the stage for such courses in other departments.

Albany State college - - - - - - As an instructor of mathematics at a small college, taught elementary algebra, college algebra, and geometry.

Cleveland Board of Education - - Taught shop math, business math, and geometry to high school students.

Mobile County School Board - - - - Taught eighth, ninth, and tenth grade mathematics, including first and second year algebra and elementary geometry.

RECORD AT COLLEGE

| Dates | Rank | Salary Range |
|---|---|---|
| 1988 - Present | Associate Professor | $45,495 - $59,994 |
| 1979 - 1988 | Assistant Professor | $18,776 - $42,530 |
| 1973 - 1979 | Instructor | $13,550 - $18,140 |

PROFESSIONAL ORGANIZATIONS

Member of:
American Educational Research Association
National Association for Developmental Ed.
National Council of Teachers of Mathematics
New England Educational Research Organization
New York Metropolitan Assoc. for Dev'l Education

Personal Data

Address - 183-49 Brinkerhoff Ave., St. Albans, N.Y. 11412

Telephone - (718) 454-8721

Marital Status - Married and father of 4 children, ages: 31, 29, 12, and 4 years old.

Health - excellent

Social Security Number - 418-44-0946

Date of Birth - May 13, 1937

References

Dr. David Entin, Associate Dean, Divisions of Arts & Sciences, New York City Technical College

Mrs. Elaine Jones, Chair, Board of Education, Christ Crusader Academy, 320 West 124th St., New York, N.Y. 10024

NEW YORK CITY TECHNICAL COLLEGE

TABLE 1: Trends in Enrollment and Graduation

| COLLEGE TOTAL AND LIBERAL ARTS (LA) STUDENT FIGURES (FALL 1986 TO SPRING 1996) | | | | | | |
|---|---|---|---|---|---|---|
| TERM | ENROLLMENT | | | GRADUATION | | |
| | TOTAL | LA | % LA | TOTAL | LA | % LA |
| F86 | 10,742 | 1,049 | 9.8% | | | |
| S87 | 10,413 | 1,041 | 10.0% | 1,252 | 106 | 8.5% |
| F87 | 10,189 | 968 | 9.5% | | | |
| S88 | 10,089 | 997 | 9.9% | 1,121 | 120 | 10.7% |
| F88 | 10,323 | 1,020 | 9.9% | | | |
| S89 | 10,507 | 1,075 | 10.2% | 1,165 | 84 | 7.2% |
| F89 | 11,065 | 1,090 | 9.9% | | | |
| S90 | 11,027 | 1,125 | 10.2% | 1,073 | 76 | 7.1% |
| F90 | 10,094 | 1,060 | 10.5% | | | |
| S91 | 10,668 | 1,076 | 10.1% | 994 | 52 | 5.2% |
| F91 | 10,365 | 801 | 7.7% | | | |
| S92 | 10,494 | 1,085 | 10.3% | 1,136 | 67 | 5.9% |
| F92 | 10,444 | 1,140 | 10.9% | | | |
| S93 | 10,256 | 1,141 | 11.1% | 1,123 | 71 | 6.3% |
| F93 | 10,596 | 1,319 | 12.4% | | | |
| S94 | 10,566 | 1,321 | 12.5% | 1,256 | 60 | 4.8% |
| F94 | 10,760 | 1,354 | 12.6% | | | |
| S95 | 10,698 | 1,353 | 12.6% | 1,223 | 81 | 6.6% |
| F95 | 10,163 | 1,124 | 11.1% | | | |
| S96 | 10,880 | 1,325 | 12.2% | | | |

Source: NYCTC Data Core; Office of the Registrar

TABLE 2: RETENTION AND GRADUATION RATES:

LIBERAL ARTS AND COLLEGE TOTAL, BY COHORT

1988 entering cohort up to January, 1996

A) All students, 2,223
   a) 754 enrolled (34%) only in first year, 0 graduated
   b) 372 stop-out (enrolled off and on), 75 (20%) graduated
   c) 1,097 enrolled continuously, 406 (37%) graduated
   d) 481 graduated (22% of total cohort)
B) LAA students, 180 entering students
   a) 62 enrolled (34%) only in first year, 0 graduated
   b) 32 stop-out, 1 graduated (3%)
   c) 86 enrolled continuously, 25 graduated (29%)
   d) 26 graduated (14%)
C) LAS students, 52 entering students
   a) 14 enrolled (27%) only in first year, 0 graduated
   b) 10 stop-out, 3 graduated (30%)
   c) 28 enrolled continuously, 5 graduated (18%)
   d) 8 graduated (15%)

1990 entering cohort up to January, 1996

A) All students, 2,326
   a) 784 enrolled (34%) only in first year, 0 graduated
   b) 358 stop-out, 31 (8.6%) graduated
   c) 1,184 enrolled continuously, 289 (24.4%) graduated
   d) 320 graduated (14% of total cohort)
B) LAA students, 182 entering students
   a) 71 enrolled (39%) only in first year, 0 graduated
   b) 28 stop-out, 2 graduated (7%)
   c) 83 enrolled continuously, 20 graduated (24%)
   d) 22 graduated (12%)
C) LAS students, 32 entering students
   a) 11 enrolled (34%) only in first year, 0 graduated
   b) 9 stop-out, 2 graduated (22%)
   c) 12 enrolled continuously, 1 graduated (8%)
   d) 3 graduated (9%)



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TABLE 3

**1995 ALUMNI SURVEY: COLLEGE-WIDE RESULTS**

Number: 488 survey respondents (classes of 1985, 1988, 1991, and 1994)

Questions 41/45: How well did the college prepare you to use the following skills in your field?

| | Excellent | Good | Adequate | Inadequate |
|---|---|---|---|---|
| Reading | 31.7% | 50.5% | 16.5% | 1.3% |
| Writing | 24.8% | 52.9% | 19.3% | 3.0% |
| Speaking | 21.4% | 51.2% | 22.5% | 4.9% |
| Mathematics | 23.5% | 32.3% | 23.3% | 3.4% |

(16.9% reported did not use mathematics or not applicable)

Question 42: In addition to career-specific courses, every program requires general education, courses outside your major. Would you describe the general education courses at City Tech as?

a. An important part of your education 56.9%

b. Marginally important to your education 35.0%

c. Unimportant to your education 8.2%

**TABLE 4**

Performance of NYC Technical College Students at Baruch College

| SUBJECT | FALL 1986 ENTRANTS | | FALL 1990 ENTRANTS | |
|---|---|---|---|---|
| Accountancy | 1.67* | | 2.37 | |
| Economics | 2.15 | | 2.38 | |
| English | 2.51 | | 2.41 | |
| Finance | 2.20 | | 2.57 | |
| Law | 2.21 | | 2.56 | |
| Management | 2.28 | | 2.12 | |
| Marketing | 2.45 | | 2.37 | |
| Mathematics | 1.30 | | 2.21 | |
| Political Science | 2.55 | | 2.81 | |
| Psychology | 2.64 | | 2.62 | |
| Statistics | 2.62 | | 2.53 | |
| Graduation and Persistence through 3 years | | | | |
| % still enrolled | 32.7 | | 49.1 | |
| % graduated | 9.6 | | 11.3 | |
| Total Persistence | 42.3% | | 60.4% | |

*Numbers indicate the average grades in these subjects earned by students in each cohart

(Source: Office of Institutional Research, Baruch College 1996)

## LIBERAL ARTS STUDENT OUTCOMES SURVEY

### TABLE 5A: BACKGROUND INFORMATION

February, 1996 — Number: 121 respondents

A. Age

Under 20 years: 27%
20 - 21 years : 33%
22 - 29 years : 26%
30 or over yrs: 14%
Median age: 23.6 years

B. Credits Currently Enrolled

Under 12 credits: 17%
12 - 15 credits : 61%
Over 15 credits : 22%

C. Credits Previously Earned:

0 credits earned: 6%
1 - 11 credits : 10%
12 - 23 credits : 23%
24 - 35 credits : 21%
36 - 47 credits: 15%
48 - 59 credits: 9%
60 - 71 credits: 6%
72 or more : 9%

D. Ethnic Identity:

Hispanic: 21%
Black : 55%
White : 13%
Asian : 11%

E. Citizenship

66% = U.S. Citizen:
34% = Alien/Immigrant

F. Plans for the Next Academic Year:

1% = not attend college
49% = re-enroll in this college
39% = attend another college
11% = undecided

G. Highest Degree Goal in Life:

| | When First Enrolled | Currently |
|---|---|---|
| Associate | 22% | 4% |
| Bachelors | 37% | 18% |
| Masters | 26% | 40% |
| Doctorate/ Professional | 15% | 38% |

H. Parents' Education

| | Father | Mother |
|---|---|---|
| Below high school | 44% | 37% |
| High School | 28% | 35% |
| Some College/Assoc | 10% | 19% |
| Bachelors | 11% | 5% |
| Post-Graduate | 7% | 5% |

## LIBERAL ARTS STUDENT: COLLEGE OUTCOMES SURVEY

### TABLE 5B: OUTCOMES ATTAINMENT

How much progress have you made at this college toward attainment of that outcome?

| OUTCOME | MUCH/ VERY MUCH | MODERATE | LITTLE/ NONE |
|---|---|---|---|
| 1. Drawing conclusions after weighing evidence, facts & ideas | 62% | 27% | 10% |
| 2. Developing problem-solving skills | 54% | 34% | 12% |
| 3. Learning to think and reason | 70% | 22% | 8% |
| 4. Locating and organizing information | 54% | 29% | 15% |
| 5. Thinking objectively | 56% | 32% | 12% |
| 6. Developing creativity | 54% | 25% | 21% |
| 7. Improving writing skills | 67% | 22% | 11% |
| 8. Reading skills | 63% | 25% | 12% |
| 9. Speaking more effectively | 64% | 25% | 11% |
| 10. Study skills | 61% | 25% | 11% |
| 11. Listening skills | 70% | 21% | 8% |
| 12. Formulate lifetime goals | 62% | 25% | 13% |
| 13. Openness to new ideas | 62% | 22% | 16% |
| 14. Appreciating fine arts | 54% | 21% | 23% |
| 15. Broadening intellectual interests | 58% | 23% | 19% |
| 16. Job seeking skills | 44% | 22% | 33% |
| 17. Learning about career options | 41% | 30% | 29% |
| 18. Applying scientific knowledge | 47% | 23% | 30% |
| 19. Global environment | 31% | 23% | 22% |
| 20. Using technology | 42% | 30% | 28% |
| 21. Role of science and technology | 41% | 31% | 28% |
| 22. Applying mathematics | 46% | 28% | 27% |

N = 121 February 1996

LIBERAL ARTS STUDENT: COLLEGE OUTCOMES SURVEY

TABLE 5C: PERSONAL GROWTH

Extent of the college's contribution to your personal growth?

| | VERY GREAT/ GREAT | MODERATE | LITTLE/ NONE |
|---|---|---|---|
| 1. Becoming effective team member | 31% | 42% | 26% |
| 2. Consider opposing points of view | 26% | 45% | 18% |
| 3. Interact well with other cultures | 52% | 31% | 17% |
| 4. Ability to relate to others | 45% | 35% | 20% |
| 5. Prepared to cope with change | 43% | 36% | 20% |
| 6. Developing leadership skills | 34% | 30% | 35% |
| 7. Adaptable, tolerant, negotiate | 52% | 15% | 33% |
| 8. Aware of intentional issues | 39% | 40% | 20% |
| 9. Participate in electoral process | 32% | 37% | 30% |
| 10. Aware of local and national issues | 37% | 34% | 28% |
| 11. Gaining insight into human nature through literature, history, arts | 47% | 36% | 18% |
| 12. Citizen rights and responsibilities | 43% | 31% | 27% |
| 13. Sensitive to moral injustices | 43% | 33% | 25% |
| 14. Understand different religious values | 37% | 37% | 27% |
| 15. Responsible for my own behavior | 47% | 36% | 18% |
| 16. More responsible family member | 39% | 29% | 33% |
| 17. Clarifying my personal values | 39% | 34% | 28% |
| 18. Sense of purpose and meaning for my life | 46% | 31% | 23% |
| 19. Deal fairly with wide range of people | 54% | 30% | 16% |
| 20. Moral principles to guide actions | 43% | 36% | 21% |
| 21. Appropriate social skills | 45% | 38% | 18% |
| 22. Becoming academically competent | 57% | 29% | 14% |
| 23. Developing productive work relationships with both men and women | 40% | 41% | 19% |
| 24. Increasing my intellectual curiosity | 56% | 30% | 14% |
| 25. Setting long-term or "life" goals | 52% | 33% | 16% |
| 26. Expressing emotions and ideas | 40% | 36% | 21% |
| 27. Understanding myself, talents, interests | 45% | 33% | 22% |
| 28. Developing self-confidence | 46% | 34% | 21% |
| 29. Willing to change and learn | 42% | 30% | 18% |
| 30. Ability to stay with and complete projects | 56% | 29% | 15% |
| 31. More effective in multicultural society | 50% | 32% | 19% |
| 32. Acquiring well-rounded general education | 57% | 28% | 16% |

N = 121

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LIBERAL ARTS STUDENT: COLLEGE OUTCOMES SURVEY

TABLE 5D: STUDENT SATISFACTION

Indicate your level of satisfaction with each of the following:

| | VERY SATISFIED/ SATISFIED | NEUTRAL | VERY DISSATISFIED/ DISSATISFIED |
|---|---|---|---|
| 1. Faculty respect for students | 61% | 29% | 11% |
| 2. Quality of instruction | 61% | 29% | 10% |
| 3. Availability of faculty for appointments | 55% | 33% | 12% |
| 4. Concern for me as an individual | 54% | 37% | 10% |
| 5. Informal contact with faculty | 40% | 54% | 6% |
| 6. Quality of my program of study | 56% | 32% | 12% |
| 7. Quality of academic advising | 51% | 28% | 21% |
| 8. Sense of belonging on this campus | 52% | 37% | 11% |
| 9. Class size | 47% | 29% | 26% |
| 10. Flexible degree requirements | 53% | 32% | 6% |
| 11. Language help for ESL students | 52% | 37% | 11% |
| 12. Freedom from harassment on campus | 52% | 36% | 12% |
| 13. Personal security/safety on campus | 63% | 27% | 10% |
| 14. Response to non-traditional students | 59% | 31% | 10% |
| 15. Rules governing student conduct | 50% | 39% | 10% |
| 16. Response to students with special needs | 54% | 37% | 6% |
| 17. Ethnic, political, religious understanding | 53% | 41% | 7% |
| 18. College social activities | 50% | 36% | 14% |
| 19. Opportunities for involvement in campus activities | 49% | 33% | 17% |
| 20. Placement in reading, writing, math | 48% | 32% | 20% |
| 21. Access to computers | 59% | 22% | 19% |
| 22. Remedial and tutorial help | 55% | 29% | 16% |
| 23. Library/learning resources | 68% | 20% | 12% |
| 24. Transfer course credits from other colleges | 41% | 39% | 20% |
| 25. Variety of courses offered | 51% | 24% | 25% |
| 26. This college in general | 58% | 23% | 20% |

Indicate the extent to which you agree with the following statements about this college:

| | STRONGLY AGREE/ AGREE | NEUTRAL | STRONGLY DISAGREE/ DISAGREE |
|---|---|---|---|
| 1. Helped me meet the goals I came here to achieve | 40% | 43% | 16% |
| 2. If choosing a college, I would choose this | 32% | 34% | 36% |
| 3. Prepared me for career changes | 46% | 33% | 22% |
| 4. Recommend this college to others | 57% | 23% | 21% |
| 5. Equally supportive of men and women | 66% | 29% | 6% |
| 6. Motivated me to make something of my life | 59% | 32% | 10% |
| 7. Equally supportive of all racial/ethnic groups | 63% | 29% | 8% |
| 8. Proud of my accomplishments at this college | 59% | 32% | 9% |
| 9. Welcomes and uses student feedback | 40% | 37% | 22% |

N = 121

February 1996

BEST COPY AVAILABLE

## TABLE 6

### Student Evaluation of Teaching

Averages by Liberal Arts Department

# 11: Overall, Instructor was effective

# 7: Instructor was available for conferences

| | FALL 1995 | | | SPRING 1995 | |
|---|---|---|---|---|---|
| | # 11 | # 7 | # of Students | # 11* | # of Students |
| African American | 1.4 | 1.7 | 265 | 96.7% | 209 |
| Developmental Math | 1.4 | 1.6 | 795 | | |
| Developmental Reading | 1.4 | 1.6 | 406 | | |
| English | 1.6 | 1.7 | 1,352 | 97.3% | 75 |
| Humanities | 1.6 | 1.8 | 664 | 67.1% | 76 |
| ESL | 1.7 | 1.7 | 773 | 92.1% | 177 |
| Chemistry | 1.7 | 1.8 | 357 | 71.4% | 49 |
| Social Science | 1.8 | 1.8 | 878 | 86.8% | 327 |
| Mathematics | 1.9 | 2.0 | 1,659 | 87.4% | 286 |
| Physics | 2.0 | 2.0 | 431 | 91.5% | 82 |
| Biology | 2.1 | 2.2 | 850 | 78.6% | 98 |

Fall, 1995:

Scale: 1 = strongly agree
2 = agree
3 = neutral
4 = disagree
5 = strongly disagree

Spring, 1995:

* Percent agree instructor was effective